Comment Letter AS012

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AS012

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California High Speed Rail Authority
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Allan Rutter, Administrator
Federal Railroad Administration
U.S. Department of Transportation
1120 Vermont Ave N.W. M/S 20
Washington, D.C. 20590

Dear Messrs. Morshed and Rutter:

California High-Speed Train Draft Program Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) SCH 2001042045

The California Department of Fish and Game (Department) has reviewed the California High-Speed Train Draft Program EIR/EIS (DPEIR/EIS) and provides comments on fish and wildlife resources that may be affected by the project. The project consists of a high-speed train program that will serve as a guide for planning and implementing high-speed train infrastructure and providing high-speed train services to customers throughout California between the major metropolitan centers of Sacramento and the San Francisco Bay Area in the north, through the Central Valley, to Los Angeles and San Diego in the south. The train system would be approximately 700 miles long and capable of traveling 220 miles per hour, with a fully grade-separated track, and with state of the art safety, signaling, and automated control systems.

The Department has jurisdiction over the conservation, protection and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish and Game Code section 1802). The Department is a Trustee Agency under the California Environmental Quality Act (CEQA), Section 15386, and a Responsible Agency for ensuring that fish and wildlife resources of the State are addressed pursuant to CEQA. The Department also has regulatory authority with regard to the "take" of any state listed threatened or endangered species under the California Endangered Species Act (CESA), and over activities that substantially divert or obstruct the natural flow of, or substantially change or use material from the bed, channel, or bank of any river, stream, or lake (Fish and Game Code section 1602). California maintains lists of fully protected species. The Department can not authorize the incidental take of those species listed as "Fully Protected" as per California Fish and Game Code sections 3511, 4700, 5050, and 5515.

Conserving California's Wildlife Since 1870

The Department's comments are based on the impacts discussion and proposed mitigation strategies identified in the California High-Speed Train EIR/EIS and the three (3) following alternatives: (1) a No Project Alternative, (2) High-Speed Train (HST) Alternative, and (3) a Modal Alternative. Various corridor alignments have been identified and proposed for selection in subsequent analyses.

The Department offers the following comments and recommendations on the California High-Speed Train EIR/EIS regarding impacts to wildlife, the habitats on which they depend and the Department's jurisdiction and role in conserving lands for the benefit of those species. The Department participated in and provided comments at five (5) Resource Agency workshops held by the California High Speed Rail Authority (Authority) and Federal Railroad Administration (FRA) and commented on the Notice of Preparation and the September 4, 2002 Revised Draft Summaries, Environmental Analysis Methodologies. Many of our concerns remain unaddressed in the DPEIR/EIS. The Department urges the Authority and the FRA to complete the additional suggested program level analyses and re-circulate a DPEIR/EIS prior to certification of a final environmental document for the project. AS012-1

STATEWIDE ISSUES

Alternatives

HST Alternative

The HST Alternative analyzed two types of train technologies: electrified steel-wheel-on-steel-rail dedicated service and non-electrified steel-wheel-on-steel-rail (conventional) service for the Los Angeles to San Diego corridor. The electrified train, capable of maximum speeds of 220 mph requires an "access-controlled right-of-way" and "fully grade-separated" track. Some existing rail infrastructure would be used, but in some areas 3 or 4 mainline tracks may be utilized to provide different levels of service.

The Department requests more information regarding the infrastructure and configuration of train related systems such as electrical supply substations, booster stations, catenary wires and safety features such as perimeter fencing. These infrastructure features contribute to overall impacts the HST alternative may have on wildlife. The inadequate project description in the DPEIR/EIS made it difficult to adequately evaluate project-related impacts and feasible mitigation measures on biological resources and wetlands. A discussion, analysis of the potential impacts and proposed mitigation for the design features, infrastructure, construction methods, noise barriers and numerous other un-described project details will need to be addressed in the subsequent analysis of impacts, but also warrants discussion in the DPEIR/EIS. Many of the design features, infrastructure, and construction methods are already known to some extent, as demonstrated by Figures 2.6-3 and 2.6-5 and through discussions at HST Resource Agency workshops. Therefore, their impacts on wildlife should be discussed in more detail in the DPEIR/EIS. AS012-2

No Project Alternative vs. Modal Alternative

The No Project Alternative chosen as the baseline for comparison of the Modal and HST Alternatives is unusual in that it is based on anticipated AS012-3

Comment Letter AS012 Continued

improvements to highway, air, and rail currently projected to be implemented by 2020. It is not clear what the real value of the proposed HST project would be. Even though the HST system would serve the same passenger population that currently uses highways, airports and trains, it should be made clear in the DPEIR/EIS that implementation of the HST does not preclude implementation of the Modal Alternative. Therefore, the DPEIR/EIS should include an evaluation of impacts based on implementation of all of the alternatives (No Project, Modal, *and* HST) to more accurately represent a probable future transportation system in California.

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Alternative Corridor Options

The general analysis of the Alternative Corridor Options was thorough in that it described and made general estimates of the potential number of acres of wetlands and other waters, numbers of species, and identified a few of the larger conservation areas impacted. This general selection of alternative corridors, according to the DPEIR/EIS would result in alignments with potentially fewer significant natural resource impacts. The analysis of alternatives highlighted why some sections were selected over others that represented options with the fewest potential impacts to biological resources and wetlands. Subsequent analyses will provide more detail regarding which alignments remaining will result in fewer significant natural resource impacts. The Department anticipates further analysis and opportunities to review and comment on remaining alignment selection to further avoid and minimize impacts.

AS012-4

3.15.2B. Biological Resources and Wetlands By Region

In general, the DPEIR/EIS presented no specific discussion and analysis of the types of biological resource impacts that would need to be mitigated. The DPEIR/EIS simply provided cursory lists of the wetlands, wildlife species whose movement may be impacted, wildlife species, and plants and vegetation communities that would potentially be impacted by the project as generated from the California Natural Diversity Database (CNDDB). Site-specific surveys, on-site visits, and consultation with species experts and agency biologists will be necessary to further analyze the project impacts of the various corridor alignments on biological resources and wetlands, and develop site-specific mitigation measures.

AS012-5

The evaluation of project impacts provided by the DPEIR/EIS was extremely limited. For example, only single statements were made regarding impacts of light, shadow, noise, and fencing for at-grade alignments. The DPEIR/EIS should discuss the potential impacts the HST and Modal alternatives may have on wildlife. The Department recommends the DPEIR/EIS be revised to include more detailed project descriptions for each alternative and discuss potentially significant direct, indirect, and cumulative impacts and feasible mitigation measures for the following impacts including, but not limited to: EMI/EMF, light, noise, vibration, disturbance, habitat fragmentation, sedimentation, habitat loss, conservation lands (NCCPs, HCPs, mitigation lands, conservation easements and other conserved lands), public use on conservation lands, energy supply and infrastructure, regional and statewide growth inducement, direct and indirect mortality due to collision on HST drafts, and edge effects.

AS012-6

Study Wildlife Movement/Migration Corridors

The HST has the potential to disrupt already beleaguered wildlife passages, threatening the continued viability of many species. Construction of access controlled rail lines may create barriers to the movement of wildlife, thereby cutting them off from important food, shelter, or breeding areas. Isolation of sub-populations limits the exchange of genetic material and puts populations at risk of local extinctions through genetic and environmental factors. Barriers can prevent the re-colonization of suitable habitat following local extirpations, ultimately putting the species at risk of extinction.

AS012-7

The DPEIR/EIS proposes to study wildlife movement/migration corridors further in subsequent "project-level studies". The information the DPEIR/EIS relied upon for the impacts analysis for the DPEIR/EIS was obtained from the *Missing Linkages* report by the California Wilderness Coalition (2000). The "Linkages" lines are estimations of location and indicate areas in need of connectivity. These lines should be used for general planning purposes only. They may provide some guidance in the subsequent alignment-specific project analysis and may guide mitigation strategies for creating linkages where there are currently choke points or impassable areas as project mitigation for impacted wildlife movement. At a program level, the DPEIR/EIS must analyze impacts to wildlife resulting from loss of corridors, habitat fragmentation, and population isolation.

The DPEIR/EIS Section 3.15.4 Comparison of Alternatives by Region mentioned wildlife underpasses, overpasses, and tunnels as potential mitigation. A discussion and analysis of these measures as feasible mitigation measures should be included in the Mitigation Strategies Section. Research should be conducted before the selection of the alignments to determine the best locations for wildlife movement passage structures, numbers of structures, alignment elevation or tunneling based on animal movement patterns, landscape features, and habitat. Specific alignments and wildlife passage structures such as underpasses, overpasses, elevating the alignment and tunnels may not be suitable for all species and locations and would need to be evaluated carefully in subsequent analysis of alignment sections. Methods to determine the best locations for wildlife movement structures or avoidance should include at a minimum: 1) track count surveys, 2) ditch crossing surveys, 3) monitoring trails with infrared or Trailmaster cameras, and 4) GIS habitat modeling to identify likely wildlife travel corridors and anthropogenic barriers (such as highways, canals, and reservoirs) at the landscape level. In addition, wildlife habitat linkages will need to be identified using habitat models, information from the movement studies and GIS analyses.

AS012-8

In addition to identifying wildlife movement corridors, habitat linkages, the amount and type of wildlife habitat fragmented, and reduced habitat value and/or viability by the project will need to be quantified and mitigated. We anticipate the acres of fragmented habitat to be significant due to the linear nature of the project.

AS012-9

The Department recommends avoiding and restoring wildlife movement corridors and mitigating the interruption of wildlife corridors by elevating the track, relocating sub-segments, changing track alignment and design, tunneling, and

AS012-10

Comment Letter AS012 Continued

constructing overpasses and underpasses at corridor areas as appropriate. Given the scale of potential impacts to wildlife movement, the required number of corridor mitigations could be substantial. The DPEIR/EIS must discuss the potential scope of the mitigation program so that the Authority and the Public may properly assess the cost-feasibility of the project. The scale of potential impacts from this project are unprecedented, and the Department can envision the costs of mitigation for wildlife passage alone ranging up to 20% of the HST capital construction cost.

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NCCPS, HCPS, and other Regional Plans

The DPEIR/EIS is required to discuss any inconsistencies between the proposed project and applicable general and regional plans [CEQA 15125 (a)]. The DPEIR/EIS should analyze and include a discussion of impacts to applicable regional plans including, but not limited to, recovery plans, habitat restoration plans, Natural Community Conservation Plans (NCCPs), Habitat Conservation Plans (HCPs), mitigation land management plans, and coordinated resource management plans. Many approved and in-progress plans were overlooked and inconsistencies were not addressed in the Program DPEIR/EIS (See additional comments on specific conservation plans in 3.15.2B. Biological Resources and Wetlands By Region comments below).

The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale and focus on the long-term stability of wildlife and plant populations while accommodating compatible land use. The Department recommends the California High Speed Rail Authority and Federal Railroad Administration follow the requirements and general principals, and where appropriate in active planning areas, participate in developing and enter into planning agreements for HCPs, NCCPs and other conservation planning efforts.

AS012-11

Many approved and permitted HCPs/NCCPs are currently being implemented in various areas of the state, including several in the Bay Area and Central Valley and many more in Southern California. The conservation land reserve systems for these plans will be nearing completion in approximately 20 to 25 years, which is coincident with the HST completion timeline. It is imperative that potential impacts to these reserve systems be identified and analyzed in for the DPEIR/EIS, as HST impacts to these areas at +15 or +20 years could result in significant and un-mitigatible project impacts which may preclude project completion. At a minimum, the DPEIR/EIS should identify potential conflicts between the project and HCP/NCCP proposed reserve systems so that appropriate adjustments can be made to these plans now to accommodate the HST alignments and ensure that impacts to the reserve systems are minimized.

The Department recommends including in the DPEIR/EIS tables and written summaries that list and discuss the adopted and in progress plans and their policies which may be impacted by the HST project and project alternatives. This analysis should address proposed plans (those whose implementation is anticipated by 2020) similar to timeline used to analyze other alternatives and impacts in the DPEIR/EIS.

Wetlands, riparian areas, other waters and hydrologic connectivity

The DPEIR/EIS should address impacts of interrupted hydrologic connections and hydrologic function in lagoons, vernal pools, and other highly sensitive wetlands that are crossed by the HST alternative. The DPEIR/EIS should discuss the range of impacts to wildlife and plants dependent on these habitats, such as isolating populations increased sedimentation, pollution, etc. The DPEIR/EIS did not address the impacts of construction and maintenance activities on aquatic and riparian habitat such as habitat loss, fragmentation and the response of fish and wildlife to these conditions. The DPEIR/EIS should analyze the potential impact tunneling and train corridor construction may have on seeps and springs and related direct and indirect impacts on wildlife.

AS012-12

Noise, Vibration, and Disturbance

The DPEIR/EIS should include wildlife study areas for noise and vibration impacts. The reported impacts on wildlife range from minor behavioral responses to severe changes in the use of an area. Information on the physiologic, population, and reproductive effects for most species and situations is currently unknown, especially those effects related to high-speed rail. The noise exposure-vs-distance curves are based on human ranges of tolerance for maximum level and duration. The DPEIR/EIS should develop a noise and vibration impact study to evaluate the impacts on wildlife that includes noise and vibration ranges expected to impact wildlife. Data is available for both airports and highways for analysis of the other alternatives. The study should examine noise, below surface vibration, and surface vibration impacts on wildlife. The study design should be approved by the Department and the U.S. Fish and Wildlife Service (USFWS).

In areas of important wildlife habitat or wildlife concentration areas the construction of the HST alternative would introduce a new source of disturbance during construction and operation of the HST that may negatively affect the way wildlife use their habitat. Examples would include HST traffic in traditional sandhill crane roosting areas, or other similarly important habitats. The DPEIR/EIS should analyze aversion, displacement and behavioral modification impacts on wildlife (this analysis may in part be evaluated by the noise and vibration study suggested above).

AS012-13

Noise and vibration will likely have impacts to "sensitive land uses" including the Department's Wildlife Areas, Ecological Reserves, and other conservation lands. Wildlife areas are typically managed for hunting, fishing, wildlife viewing, and education opportunities. While ecological reserves are managed as preserves that provide refuge for sensitive wildlife and plants, they are also used by the public for wildlife viewing and education. These areas should be considered "sensitive land uses" to be evaluated within a minimum 1,000-foot study area.

Energy, Air Quality and Wildlife Impacts

The DPEIR/EIS should analyze the direct, indirect, and cumulative energy supply infrastructure and consumption impacts on wildlife for each alternative. Burning petroleum products to power vehicles or produce electricity results in the production of CO2, a greenhouse gas (GHG). In addition to the pollutants analyzed

AS012-14

Comment Letter AS012 Continued

in the Air Quality section, an analysis of CO2 emissions for each alternative should be included. While CO2 is not a pollutant per se, its impact on the people, habitats, and species of California (and the world) is undeniable. Recognizing this fact, the State recently passed landmark legislation mandating the reduction of GHGs emitted from new vehicles and setting goals and timelines for major increases in renewable energy. Given that the proposed methods already include an analysis of energy use and its resultant toxic emission loads, it is relatively simple to include a calculation of annual tons of CO2 emissions as well.

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The only way to reduce GHG emissions is to use less fuel. The document should address how the HST will further the State's goal of reducing GHG emissions and thereby reduce impacts on wildlife and habitats.

"EMI / EMF"

The potential impacts of EMI/EMF on wildlife were not addressed in the DPEIR/EIS. EMI/EMF has been shown to cause birds to deviate from flight direction and migration. Please analyze the project's potential EMI/EMF direct, indirect, and cumulative impacts on wildlife.

AS012-15

Regional and Statewide Growth Inducement

The DPEIR/EIS should analyze increased human population pressures on rare, threatened, and endangered species and their habitats as a result of the project's impacts on regional and statewide development growth for each alternative. The high-speed rail would result in increased build out all along each of the corridors. Reasonably foreseeable future projects may compound or increase impacts to biological resources. These potential growth induced impacts should be addressed in the Biological Resources and Wetlands section of the DPEIR/EIS, and should be considered in the project's cumulative impact analysis.

AS012-16

DFG Lands

Department of Fish and Game Wildlife Areas, Ecological Reserves, Conservation Easements and other conservation lands will be impacted by the HST alternative. Many Department lands are within one mile of the HST corridor alignments. Some of these lands were acquired and conveyed in fee title or conservation easement to the Department to mitigate impacts of other projects.

Ecological Reserves will be impacted by the project. Ecological Reserves are typically acquired for the protection of threatened or endangered native plants, wildlife or aquatic species or specialized habitat types for the benefit of the general public. Take of any bird, plant, mammal, fish, mollusk, crustacean, amphibian, reptile, or any other form of plant or animal life in an ecological reserve is prohibited per Title 14 Section 630 (1).

AS012-17

Many Department Wildlife Areas are also within one mile of the project or in the alignment corridor. Wildlife Areas are acquired for the protection and enhancement of habitat for a wide variety of species. In addition to providing species and habitat protection, many of these areas are open to the public for wildlife viewing, hiking, hunting, fishing and nature tours. Some wildlife areas depend on

visitor's fees for operations, maintenance and management. The HST may impact the number of visitors resulting in reduced revenues and visitor use of these areas. Physical access and uses may be impacted. Reduced revenues would impact the operations, maintenance and management necessary to protect and enhance species and habitats for which those lands were acquired. Other Department lands not designated as Wildlife Areas or Ecological Reserves provide public access for fishing, hiking, hunting or wildlife viewing. Access may be impeded and public uses impaired in addition to wildlife species impacts.

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The DPEIR/EIS states that future funding for the project may be provided through the US Department of Transportation. The Secretary of Transportation may approve a project requiring the use of publicly owned land of a wildlife and waterfowl refuge only if there is no prudent and feasible alternative to using that land; and the project includes all possible planning to minimize harm to the wildlife and waterfowl refuges from the use. "Use" includes substantial impacts to wildlife resources due to close proximity of a transportation project (Department of Transportation Act 49 U.S.C. Section 303).

A list of Department lands impacted by the HST alignment corridors is enclosed for analysis (Attachment 1).

Agriculture

Some agricultural lands serve as replacement habitat for wildlife species. Conservation Programs under the Farm Bill such as the Conservation Reserve Program, Wetland Reserve Program, and the Wildlife Habitat Incentive Program encourage conservation of wildlife and habitats. These programs include restoration, development of wildlife habitat, temporary or permanent easements, and invasive species and pest control programs which may be impacted by the project. Please analyze the impacts to these programs and the related impacts to fish, wildlife, plants, and wetlands.

AS012-18

Cumulative impacts

Section 3.17 of the DPEIR/EIS contains the cumulative impact analysis for this program document. The analysis discussed in the DPEIR/EIS was a separate discussion of each environmental impact category. The Biological Resources and Wetlands portion of the Cumulative Impacts Evaluation did not address the proposed project alternatives contribution to cumulative impacts in the affected regions, or recommend feasible mitigation measures or ways to avoid contributing to cumulative effects. For example, the cumulative impacts section could have discussed the cumulative effects of the corridor alignments on wildlife movement across the entire Central Valley region due to the portion of the HST project that would include fencing of at-grade alignments for safety purposes. Cumulatively, the various alignment regions would almost eliminate wildlife movement in many areas of the state.

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Where impacts are unavoidable, mitigation measures should be addressed comprehensively such that impacts from other transportation projects that are